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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/189,793	11/12/1998	BYUNG KEUN LIM	K-039	5887

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EXAMINER	
ELALLAM, AHMED	
ART UNIT	**PAPER NUMBER**
2662	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/189,793	LIM, BYUNG KEUN	
	Examiner	Art Unit	
	AHMED ELALLAM	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-32,34-36,38-40 and 43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-32,34-36,38-40 and 43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This communication is responsive to the Amendment filed on September 7, 2004. The Amendment has been entered.

Claims 30-32, 34-36, 38-40 and 43 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 30-32, 34-36, 38-40 and 43.are rejected under 35 U.S.C. 102(e) as being anticipated by Omura .

Regarding claims 30 and 32, with reference to figure 1, Omura discloses a mobile communication system comprising a plurality of remote unit and a base station, a system in which the base station communicates to the plurality of remote units with a plurality of base-communications signals (claimed plurality forward communication channels) which are modulated with spread-spectrum and transmitted simultaneously and on the same carrier frequency from the base station. Similarly Omura discloses that the plurality of remote-communications signals, which use the same carrier frequency, are transmitted from the plurality of remote units, respectively, so that the plurality of remote-communications signals arrive simultaneously at the base station, and that each of the remote-communications signals has its own unique chip codeword. For a particular two-way communications channel between a particular mobile and the base station, the unique chip codeword used for the base-communications signal and the remote-communications signal, respectively, may be the same. See column 2, lines 38-63. (Claimed each of the plurality of reverse communication channels and each of the plurality of forward communication channels utilize one common frequency each of the plurality of reverse communication channels and each of the plurality of forward communication channels have a unique code; and the plurality of reverse communication channels and plurality of forward channels carry data simultaneously). (Examiner interpreted the same carrier frequency as being the claimed common frequency).

Regarding claim 31, Omura discloses having each chip codeword of each remote-communications signal to be orthogonal to chip code words of a plurality of

remote communication signals, see column 6, lines 28-51. (claimed each unique code is one of a plurality of mutually orthogonal codes).

Regarding claim 34, 36, with reference to figure 1, Omura discloses a mobile communication system (claimed apparatus) comprising a plurality of remote unit (a remote unit has a transmitter that transmit on reverse channel and a receiver for receiving data on a forward channel) and a base station, See column 3, lines 32-47. Omura also discloses that for a particular two-way communications channel between a particular mobile and the base station, a unique chip codeword used for the base-communications signal and the remote-communications signal, respectively, may be the same. See column 2, lines 38-63. (Claimed the reverse communication channel and the forward communication channel each have a unique code). (Examiner interpreted the bi-directional two-way communication as being the claimed the reverse communication channel and the forward communication channel are configured to carry data simultaneously).

Regarding claim 35, Omura discloses having each chip codeword of each remote-communications signal to be orthogonal to chip code words of a plurality of remote communication signals, see column 6, lines 28-51. (Claimed each unique code is one of a plurality of mutually orthogonal codes).

Regarding claim 38 and 40, with reference to figure 1, Omura discloses a mobile communication system (claimed apparatus) comprising a plurality of remote and a base station, (base has a transmitter that transmit on reverse channel and a receiver for receiving data on a forward channel), See column 3, lines 32-47. The base station

communicates to the plurality of remote units with a plurality of base-communications signals (claimed plurality forward communication channels) , which are modulated with spread-spectrum and transmitted simultaneously and on the same carrier frequency from the base station. Similarly Omura discloses that the plurality of remote-communications signals, which use the same carrier frequency, are transmitted from the plurality of remote units, respectively, so that the plurality of remote-communications signals arrive simultaneously at the base station. Omura further disclose that for a particular two-way communications channel between a particular mobile and the base station, the unique chip codeword used for the base-communications signal and the remote-communications signal, respectively, may be the same. See column 2, lines 38-63. (Claimed the reverse communication channels and the forward communication channels have a unique code)l, Omura also discloses that the base station communicates to the plurality of remote units with the plurality of base-communications signals (forward communication channels), which are modulated with spread-spectrum and transmitted simultaneously and on the same carrier frequency from the base station. The plurality of remote-communications signals, which use the same carrier frequency, are transmitted from the plurality of remote units, respectively, so that the plurality of remote-communications signals arrive simultaneously at the base station, See column 2, lines 38-63, (Claimed each of forward communication channels utilize one frequency channel).

Regarding claim 39, Omura discloses having each chip codeword of each remote-communications signal to be orthogonal to chip code words of a plurality of

remote communication signals, see column 6, lines 28-51. (Claimed each unique code is one of a plurality of mutually orthogonal codes).

Regarding claim 43, with reference to figure 1, Omura discloses a mobile communication system (claimed apparatus) comprising a plurality of remotes units and a base station, (base has a transmitter that transmit on reverse channel and a receiver for receiving data on a forward channel), See column 3, lines 32-47. The base station communicates to the plurality of remote units with a plurality of base-communications signals (claimed plurality forward communication channels), which are modulated with spread-spectrum and transmitted simultaneously and on the same carrier frequency from the base station. Similarly Omura discloses that the plurality of remote-communications signals, which use the same carrier frequency, are transmitted from the plurality of remote units, respectively, so that the plurality of remote-communications signals arrive simultaneously at the base station. (Examiner interpreted the Omura "same " carrier frequency for uplink and downlink channels as being the claimed common frequency channel, and the Omura's base-communications signals and the plurality of remote-communications signals using the same carrier frequency as being the claimed common channel includes a reverse communication channel and forward communication channel that utilize the common channel (since the claimed common channel is referred to as frequency channel in the specification)). Omura further disclose that for a particular two-way communications channel between a particular mobile and the base station, the unique chip codeword used for the base-communications signal and the remote-communications signal, respectively, may be the

same. See column 2, lines 38-63. (Claimed reverse communication channel and the forward communication channel have a unique code).

Response to Arguments

3. Applicant's arguments filed September 7, 2004have been fully considered but they are not persuasive with reference to Omura reference.

The rejections under *35 USC § 112* have been withdrawn in view of the Amendment.

Art rejections:

Claims 30, 34, 38 and 43:

Applicant argues that the claims are patentable over Omura, and stated on page 8 of the argument that "*independent claim 30 recites that each of a plurality of reverse communication channels and each of the plurality of reverse channels utilize one common frequency. Further each of the plurality of reverse communication channels and each of the plurality of forward communication channels have a unique code*". (Italics added). And further stated that Omura uses the same unique code for both the forward and the reverse channel. Examiner respectfully disagrees, because Omura discloses that the unique chip-codes (which are orthogonal to each other) may be the same or identical, as indicated on column 2, lines 59-63. The passage relied upon from Omura states:

> For a particular two-way communications channel between a particular mobile using and the base station, the unique chip codeword used for the base-communications signal and the remote-communications signal, respectively, may be the same.

It is clear that Applicant misinterpreted the phrase "unique chip code .. may be the same" to mean "the unique chip code is the same". Omura referred that there is a possibility of having the unique code word to be the same for both uplink and downlink transmissions as an option only and not as the only option available.

More importantly, even if Omura have the same unique code for a reverse and forward link, Omura can still be reading on the claim (claim 30 and independent claims 34 and 38), because the claims are interpreted in light of the specification, and therefore as indicated in the specification, page 6, lines 4-5:

For a bi-directional transmission of data each user has a unique code for forward and reverse direction communication.

Examiner respectfully concludes that Applicant has contradicting arguments when looking at both the specification and the claims.

Examiner, also disagrees with Applicant argument that Omura does not disclose the "common channel" or "common frequency" for the plurality of each of the plurality of reverse channels and the plurality of each forward channel. In addition to the rejection above. It is well known in the CDMA system that one single frequency is used in the same cell (each base station is assigned one common frequency for uplink and downlink transmission).

Finally, Examiner notes that Applicant is required to clarify what he meant by the passage in the specification indicated above (page 6, lines 4-5). Such passage is confusing when taken with claimed invention.

Examiner believes that the prior art of Omura is pertinent, given the broadest interpretation of the claim limitations as well as the corresponding elements in the specification.

Examiner concludes that the claims as presented have the same scope of the claims presented in the response filed on February 4, 2003. The changes between the current set of claims and the ones presented earlier have the same scope, because d in having the phrase "**same carrier frequency**" changed to "**common frequency**", as in claim 30, and "**same carrier frequency**" to "**one frequency channel"** as in claim 34 and 38 respectively, does not render the claims different that previously presented. Therefore this action is Final.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2662
January 7, 2005

JOHN PEZZLO
PRIMARY EXAMINER